PATENT

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## MAGNETIC READ HEAD WITH RECESSED HARD BIAS AND CURRENT LEADS

## **ABSTRACT OF THE INVENTION**

A read element includes a magnetoresistive sensor having a side and an upper surface that defines an edge. An underlayer overlies the side of the magnetoresistive sensor, and a hard bias layer overlies at least part of the underlayer and defines a hard bias junction with the underlayer. A lead is formed atop the hard bias layer. The hard bias junction is recessed from the edge of the magnetoresistive sensor by a predetermined recess distance, to provide stability and sensitivity to the read element.